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OUTLINE FOR EVALUATION OF RECORDING TECHNIQUES

I. Evaluation of the following techniques is desired:

A. Electric Spark (spark discharge from a point source)

recording on:

- a. paper
- b. plastic (alter refractivity)
- c. see section H

B. Electrostatic (charge thrown or induced from a point source)

recording on:

- a. dielectrics
- b. film

C. Radioactive (radiation from a radio-active source)

recording on:

- a. film

D. Electron-beam (cathode ray beam)

recording on:

- a. film
- b. "blue writing"

E. Magnetic (induced magnetic field)

recording on:

- a. wire
- b. tape

F. Pyrotechniques (changes in recording due to heat)

recorder:

- a. gasflame
- b. filament
- c. electrical discharge
- d. radiation

recording on:

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recording on:

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- a. paper
 - 1. sensitive powder
 - 2. colloid formation
 - 3. vaporizing metal
 - 4. changing moisture content
- b. see section H
- G. Ultrasonic Compression (ultra-sonic waves altering physical properties)
- H. Electrochemical
 - a. etching by gases or liquid
 - b. electrolytic marking by a point discharge
 - c. formation of minute gas bubbles by breaking bonds in the recording
 - d. other chemical changes resulting either in voids or color changes in the recording
- I. Film
 - a. optical systems in general
- J. Recording Discs (wax recordings)
- II. Evaluation with respect to: (for both technique alone and technique applied to a recording system)
 - A. resolution
 - B. shape, size and weight
 - C. availability
 - D. operational practicality
 - E. life
 - F. ruggedness
 - G. power
 - H. stability
 - I. specific limitations

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